

Concepts in Trauma Care



Presented by

Jeff Solheim, MSN, RN, CEN, TCRN, CFRN, FAEN, FAAN

Jeff brings with him a wealth of nursing background, including clinical nursing in medical/surgical and emergency medicine, cruise-ship nursing, flight nursing, nursing management and administration, and as a state surveyor and nursing educator. Jeff currently finds his fulfillment speaking in front of audiences around the world on a variety of clinical and motivational topics. He was recently honored by the Emergency Nurses Association with the “Nursing Education Award” for his outstanding contributions to Emergency Nursing through education and publishing, and in 2008, was inducted as a fellow in the Academy of Emergency Nursing. Aside from speaking, Jeff contributes to numerous journals and publications. He is the co-editor of the Manager's Forum for the *Journal of Emergency Nursing*, is a regular contributor to *Nursing Spectrum*, is a content expert for *Healthstreams* and has served as editor or author for numerous books. Most recently, Jeff was the editor for the Emergency Nursing Association's online triage course and wrote an online Certified Emergency Nursing Review course for Mosby-Elsevier.

Aside from his work in the nursing field, Jeff is also the founder and director of a third-world humanitarian organization called Project Helping Hands, which regularly takes medical teams into various third-world countries. Jeff has personally visited over 15 different countries and led over 50 teams through his organization.

Jeff combines his sense of humor with stories from his travels around the world to make each seminar a fun and unforgettable experience.

12 Contact Hours | Course Length: 706 minutes

Program Description

Throughout childhood and most of adulthood, trauma remains the leading cause of death in the United States. Care of the traumatically injured patient is uniquely different from care of the patient with other medical problems and requires both a unique knowledge base and skill set for all those involved with that care.

This series is designed to provide the learner with the knowledge base and skill set needed to care for this unique patient population. It is not designed to replicate other trauma programs currently available, but instead to augment those programs, giving learners a deeper understanding of the traumatically injured patient. Novices to trauma care as well as those with an extensive background in trauma will find this series to be stimulating and an invaluable asset in care of the trauma patient.

Program Learning Outcomes

This program prepares the learner to:

1. List common injuries associated with various forms of trauma.
2. Distinguish normal from abnormal findings when performing an assessment of the traumatically injured patient.
3. Discuss current treatment modalities being utilized in the care of the traumatically injured patient.
4. Differentiate care strategies for unique populations of traumatically injured patients.

Topics Covered

1 The Biomechanics of Trauma

114 minutes

Module Description

Understanding the mechanism that causes a traumatic injury may help the healthcare provider better establish the types of injuries to anticipate and may partially guide both assessments and interventions. This lecture will review common types of falls, motor vehicle collisions, motorcycle and bicycle incidents and auto-versus-pedestrian incidents, comparing the injury patterns commonly associated with each. This module is rich with video examples of the various mechanisms of injuries discussed.

Module Learning Outcomes

This module prepares the learner to:

1. Differentiate injury patterns associated with frontal, side impact, rear impact and rollover motor vehicle collisions.
2. Anticipate the types of injury patterns associated with road-bike and speed-bike collisions.
3. Verbalize the components of Waddell's triad.
4. Identify the height at which the risk for injury and death related to a fall increase.

2 Strategies in Shock Resuscitation

75 minutes

Module Description

Recent research has called into question the traditional practices associated with hypovolemic shock resuscitation. Based on this research, the strategies in caring for the patient with hypovolemic shock is shifting. This lecture focuses on four different resuscitation strategies currently employed, comparing the advantages and disadvantages of each of the four strategies.

Module Learning Outcomes

This module prepares the learner to:

1. List four strategies currently being utilized when caring for the patient in hypovolemic state.
2. Compare the advantages of the four strategies presented for treating the patient in hypovolemic shock.
3. Compare the disadvantages of the four strategies presented for treating the patient in hypovolemic shock.
4. Apply the concepts covered to choose an appropriate resuscitation strategy for several case studies presented.

3 Traumatic Brain Injuries

91 minutes

Module Description

Traumatic brain injury remains the leading cause of traumatic death. Care of the patient with a traumatic brain injury requires unique knowledge and skill sets. This lecture provides the learner with knowledge of the recognition, assessment and treatment of a patient with a traumatic brain injury.

Module Learning Outcomes

This module prepares the learner to:

1. Differentiate between signs of early and late intracranial pressure.
2. Calculate a cerebral perfusion pressure.
3. List the four components of neurological assessment.
4. Evaluate physiological parameters to determine if interventions for a patient with a traumatic brain injury have been successful.

4 Maxillofacial and Ocular Injuries

71 minutes

Module Description

Maxillofacial trauma has far-reaching effects on trauma patients, potentially creating a negative impact on the airway and breathing mechanisms of the body, all five senses and the very identity of the individual. Maxillofacial trauma presents numerous challenges to the healthcare worker. This lecture will introduce the learner to various forms of maxillofacial and ocular trauma, provide an in-depth introduction into assessing patients and offer hints in the care of the patient with maxillofacial trauma.

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Module Learning Outcomes

This module prepares the learner to:

1. List at least one complication associated with fractures of each maxillofacial bone.
2. Differentiate between anterior, middle and posterior fossa fractures based on presenting symptomology.
3. Describe care of an avulsed tooth.
4. Identify the meaning of abnormalities encountered during the assessment of a patient with maxillofacial trauma

5 Spinal Cord Injuries

63 minutes

Module Description

Although spinal cord injuries are not as common as many other injuries associated with trauma, the effects that spinal cord injuries have on the patients who sustain them are some of the most devastating when compared with other body systems. This lecture looks at recommendations made by the consortium for spinal cord medicine in the care of the patient with a spinal cord injury, providing both recommendations for care as well as refuting some practices that are no longer considered "standard of care."

Module Learning Outcomes

This module prepares the learner to:

1. Differentiate a partial cord injury based on the description of the neurological deficits of the patients.
2. List at least five signs and symptoms associated with spinal cord injuries.
3. Define spinal shock.
4. Explain the reason that methylprednisolone sodium succinate (Solu-Medrol) is no longer recommended when caring for patients with spinal cord injuries.

6 Injuries to the Chest and Abdomen

116 minutes

Module Description

Chest injuries sustained during a traumatic event are often occult and easily missed. This module will review common injuries of the chest, the symptoms of those injuries as well as treatment considerations for patients with chest injuries. Injuries covered will include soft tissue injuries, orthopedic injuries, pulmonary injuries, cardiac injuries and injuries to the great vessels. The organs of the abdomen are poorly protected and vulnerable to injury. This module will go organ by organ, identifying signs and symptoms of trauma as well as treatment considerations for trauma. Genitourinary injuries and abdominal compartment syndrome will also be discussed.

Module Learning Outcomes

This module prepares the learner to:

1. Describe the difference between rib fractures in pediatric, adult and geriatric patients.
2. Describe the problem of a malfunctioning chest tube.
3. Define commotio cordis.
4. List the symptoms of aortic injuries.
5. Differentiate between signs of liver, spleen and pancreatic trauma.
6. Define the seat-belt sign.
7. List at least three indications for surgical repair of renal trauma.
8. Describe nursing care for a patient who develops abdominal compartment syndrome.

7 Pediatric Patient

61 minutes

Module Description

Care of the traumatically injured child is not the same as care of the traumatically injured adult. The knowledge and skills required for this population are unique. This lecture is presented in an interactive format where the learner is given a physiological difference that is unique to the pediatric population and must determine how this would influence care of the child. Many tips and tricks are presented that will assist the participant to better care for children.

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Module Learning Outcomes

At the completion of this topic, the participant will be able to:

1. List at least 10 differences between the pediatric and adult patient.
2. Match at least 10 care implications to physiological differences in the pediatric population.
3. Recognize abnormal vital signs based on child's age.
4. List a developmental milestone for each pediatric age group.

8 The Pregnant Patient

54 minutes

Module Description

Very few patients strike more fear in the hearts of a trauma team than a traumatically injured pregnant patient. The pregnant patient differs greatly from the nonpregnant patient in her laboratory values, risks of injury and assessment parameters. Because of this, care of the pregnant patient must be tailored to her unique needs. This lecture will highlight these differences as well as introduce injuries unique to the pregnant patient and her unborn child.

Module Learning Outcomes

This module prepares the learner to:

1. Identify whether various laboratory values are increased, decreased or unchanged during pregnancy.
2. Describe at least three unique considerations that must be implemented when assessing the pregnant patient.
3. Identify the approximate gestation of a pregnancy based on fundal height.
4. List at least three injuries that are unique to the pregnant patient and/or her fetus.

9 The Geriatric Patient

28 minutes

Module Description

As we age, our bodies change. This can affect the types of injuries that the elderly experience in trauma, how we assess this population and care considerations for this population. This lecture presents those concepts and does so by presenting physiological differences in the older adult and asking the participant to determine the care considerations of those differences.

Module Learning Outcomes

This module prepares the learner to:

1. List at least 10 physiological changes associated with aging.
2. Match at least 10 implications for assessment and care of the older adult based on physiological changes.
3. Determine if a laboratory value would be increased, decreased or unchanged when comparing the older adult with their younger counterpart.

10 The Bariatric Patient

33 minutes

Module Description

It is well-publicized that the incidence of obesity in the developing world is growing annually. Anybody who cares for the traumatically injured patient is most certainly going to have to care for the overweight patient and likely an obese patient. This subset of the population presents with unique assessment and care needs that are presented and discussed in this lecture.

Module Learning Outcomes

This module prepares the learner to:

1. Calculate a body mass index (BMI).
2. List at least one factor that makes airway or intervention difficult in the overweight patient.
3. List at least one factor that makes breathing assessment or intervention difficult in the overweight patient.
4. List at least one factor that makes circulatory assessment or intervention difficult in the overweight patient.

Accreditation

RN/LPN/LVN/Other: 12 Contact Hours

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